

Vacuum Group Procedure VA-008.18.1.31
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Revision 01

****IMPORTANT****

PRIOR TO THE PERFORMANCE OF ANY WORK WITHIN THE SCOPE OF THIS PROCEDURE, IT IS THE RESPONSIBILITY OF THE SUPERVISOR TO ENSURE THAT ***WORK PLANNING*** HAS BEEN REVIEWED FOR THE PROTECTION OF WORKERS, EQUIPMENT, AND THE ENVIRONMENT.

1. **PURPOSE:**
 - 1.1 To provide an effective procedure for AGS vacuum group technicians to operate the chamber bake-out oven located in bldg. 975.
2. **RESPONSIBILITIES:**
 - 2.1 The AGS vacuum supervisor shall be responsible for the implementation of this procedure.
3. **DISCUSSION:**
 - 3.1 This procedure is written so that trained AGS vacuum group technicians will be able to operate the chamber bake-out oven in an efficient and safe manner.
 - 3.2 The technician will find the oven ready for operation. Any programming of the temperature controller will have been completed by qualified personnel. Set points, ramp rates and soak times will have already been selected by the cognizant engineer and entered into the ovens programmable controller.
4. **PRECAUTIONS:**
 - 4.1 The programmable controller must be set by qualified personnel **only.**
 - 4.2 Push only the buttons you are instructed to push.
 - 4.2.1 In the event a button is pushed accidentally contact qualified personnel to rectify the problem.
 - 4.3 The oven fan **must not be turned off** until the temperature is below 250⁰ F.
 - 4.4 Take care not to open the oven door too wide, as it may cause damage to the oven door safety interlock switch.
5. **PREREQUISITES:**
 - 5.1 The technician operating the chamber bake-out oven shall have been trained in this procedure.
6. **LIMITATIONS AND ACTIONS:**
 - 6.1 **MAXIMUM** operating temperature for oven is 450⁰ F.
 - 6.2 Chambers will be heated at a rate of 3⁰ / minute up to a set point of 392⁰ F and held at 392⁰ F for 8 hours and then cooled at a rate of 3⁰ / minute to a set point of 75⁰ F.
 - 6.3 A high limit has been set at 425⁰ F to shut the oven off in the event of a temperature controller failure.
7. **TEST AND SPECIAL EQUIPMENT:**
 - 7.1 None
8. **SET-UP PROCEDURE:**
 - 8.1 Make sure both oven doors are closed securely.
 - 8.2 Make sure inlet and exhaust vents are wide Open.
9. **OPERATING PROCEDURE:**
 - 9.1 Turn main breaker **ON**.

- 9.2 Turn control power switch to **ON**.
 - 9.2.1 **Green** control power light comes on.
 - 9.2.2 **High** temperature alarm will sound
- 9.3 Silence Hi-Temp alarm by pushing **RED** alarm silencer button.
 - 9.3.1 **RED** light comes on for test and then goes out.
- 9.4 Temperature controller runs thru auto test
 - 9.4.1 Controller is now in **MANUAL “MAN” MODE** and in **HOLD “H”**
- 9.5 Push recirculation fan **start** button (green fan light will come on)
- 9.6 Push heater **start** button (green light will not come on at this time).
- 9.7 Push **MAN / AUTO** button on temperature controller (CONTR. DISPLAYS “A”)
- 9.8 Push **RUN / HOLD** button on temperature controller (CONTR. DISPLAYS “R”)
 - 9.8.1 **RAMP / SOAK** program should start, this will be indicated by hearing the heater relay pull in and the green heater light coming on as heat is required.
- 9.9 At the end of the **RAMP / SOAK** program the temperature controller returns automatically to **HOLD “H”**
- 9.10 If the temperature controller reads less than 100° F, push fan **STOP** button.
- 9.11 Turn control power switch to **OFF**.
- 9.12 Turn main breaker **OFF** and LOCK OUT. 9.13 Open oven doors and remove chambers.

10. ACCEPTANCE CRITERIA:

- 10.1 The oven has operated properly so that the chambers have been heated, soaked and cooled as desired by the cognizant engineer.

11. FINAL CONDITIONS:

- 11.1 When the oven is not in use LOCK OUT main breaker and lock doors closed.